

## ABSTRACT

In an ultrasonic imaging device having an image synthesizing unit, correlation between images to be synthesized is computed for balancing between an improvement in contrast resolution and an improvement in spatial resolution, and an amount of displacement between the images is computed. When the amount of displacement is large, the signals after envelop detection are synthesized. When the amount of displacement is small, RF signals are synthesized. Alternatively, the mixing frequency may be variable according to the amount of displacement, and the balance between an improvement in spatial resolution and that in contrast resolution is achieved according to a degree of the positional displacement.